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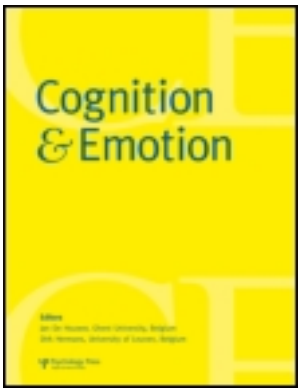

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BRIEF REPORT

A functionalist account of shame-induced behaviour

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Recent research has shown that shame activates both a restore and a protect motive (De Hooge, Zeelenberg, & Breugelmans, 2010), explaining the hitherto unexpected finding that shame can lead to both approach and avoidance behaviours. In the present article we show a clear difference in priority and development of restore and protect motives over time. Our experiment reveals that shame mainly motivates approach behaviour to restore the damaged self, but that this restore motive decreases when situational factors make it too risky or difficult to restore. In contrast, the motive to protect one's damaged self from further harm is not influenced by such situational factors. As a consequence, the approach behaviour that shame activates may change over time. These findings add to our understanding of the motivational processes and behaviours following from shame.

Keywords: Shame; Motivation; Restore; Protect; Approach behaviour.

How do people behave when feeling ashamed over failing on an important task? Are they motivated to redo the task, reaffirming their capability, or do they shun performance situations to avoid further mistakes? The answer to this question is indefinite; some studies show that shame motivates withdrawal (e.g., Scherer & Wallbott, 1994), while others show that shame motivates approach (e.g., De Hooge, Breugelmans, & Zeelenberg, 2008; Tangney, Miller, Flicker, & Barlow, 1996). We explain how shame can promote such apparently opposing behaviours by focusing on the motives of shame and on how these develop over time. Our data reveal that shame is associated with both restore and protect motives that interact with the situation to facilitate either approach or avoidance behaviour.

Shame is "one of the most powerful, painful, and potentially destructive experiences known to humans" (Gilbert, 1997, p. 113). It arises mainly after moral transgressions or incompetence and gives rise to feelings of worthlessness, inferiority, and a damaged self-image (Ausubel, 1955; Tangney, 1999). From the abundance of research on shame one may conclude that this emotion and its consequences are thoroughly understood.

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Unfortunately, we know little about what behaviours shame motivates, because the relevant findings are contradictory. Some studies find shame to promote avoidance behaviours such as withdrawal and a willingness to hide (e.g., Scherer & Wallbott, 1994; Wicker, Payne, & Morgan, 1983). Other studies find shame to motivate approach behaviours such as prosocial behaviour and a willingness to make amends (e.g., De Hooge et al., 2008; Tangney et al., 1996). Most shame theories have been unable to explain this; they generally state that shame induces avoidance and ignore the possible activation of approach motivations and behaviours (e.g., Lewis, 1992; Tangney, 1999).

Recently, we provided an explanation for these seemingly contradictory results (De Hooge et al., 2010). Our explanation centres around the notion that the self is the primary object of shame. Having a positive self-view is a core motive (e.g., Tesser, 1988). People are often motivated to maintain and defend positive evaluations of the self (Rogers, 1959). A positive self-view can counteract the fears that arise from an awareness of inevitable death (Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004), and may function as a sociometer that reflects the extent of people's inclusion in social groups (Leary & Baumeister, 2000). In shame, it is exactly this positive self-view that is threatened.

According to functional approaches to emotions, negative emotions signal a threatened goal or concern and subsequently motivate behaviours to deal with this problem (Frijda, 1986; Zeelenberg & Pieters, 2006). At a social level, emotions coordinate social interactions and relationships to meet the problems of survival (Keltner & Haidt, 1999) by informing the person about the specific events that need to be acted upon and by preparing the person to respond to problems that arise in social interactions (Campos, Campos, & Barrett, 1989; Oatley & Jenkins, 1996). Applying the functional approach to shame leads us to suggest that the motivations and behaviours associated with this emotion are focused on dealing with the threatened positive self-view. This may be done in two ways (De Hooge et al., 2010). First, people may show approach behaviour, such as entering performance-orientated situations or undertaking reparative actions, aimed at restoring the threatened self. But, when affirmation is difficult or risky in the sense that additional failure would hurt the self-view even more, people may turn to avoidance behaviour in order to protect the threatened self from further harm.

The current paper presents two important extensions of De Hooge et al. (2010). The first extension is the replication of our previous findings—based on studies using a scenario approach—in a study on actual behaviour in a lab experiment. Many emotion theories concern the interplay between emotions and actions, but hardly any empirical research directly tests these relationships. We previously tested this relationship for shame using a scenario approach, which had the advantage of experimental control (i.e., a situation can be created that resembles daily life and all irrelevant factors can be held constant), but the disadvantage that people may not always be accurate in assessing their own behaviours. A replication of our findings in a lab-experiment would attest to the robustness of the effects.

The second extension concerns the development of shame motives over time. De Hooge et al. (2010) showed shame to activate a restore motive as well as a protect motive, which jointly predicted behaviour. We predict that the strength of these motives changes over time. Shame initially activates a restore and a protect motive. However, restoring the self may not be without risks in the sense that it could result in an additional failure. Therefore, when restoring the self appears to be too difficult or risky in a particular situation, the restore motive will diminish in strength and approach behaviours become less apparent. In contrast, protecting the self does not involve risky endeavours. For that reason, the protect motive should not be affected by situational influences. As a consequence, the relative strength of the restore and protect motives will change, and approach behaviours will become less apparent.

We tested our hypothesis in a lab experiment in which shame was induced and subsequently approach behaviour was measured by giving participants the possibility of choosing between two tasks

in the lab. After measuring the restore and protect motives with self-report scales, information about the task difficulty was introduced to test the hypothesised situational influence. Participants then again decided what task they wanted to engage in and indicated their motives underlying their choice. We expected and found shame to initially activate a restore and a protect motive, and a preference for the achievement task (reflecting approach behaviour). Because the restore motive declines when approach behaviour is too difficult or risky, we hypothesised the restore motive and subsequently preference for the achievement task to decline only in the shame condition where the achievement task was presented as difficult. We also hypothesised that the protect motive would not change over time or differ across shame conditions.

METHOD

Participants and design

One hundred fifty students at Erasmus University (86 males and 64 females, $M_{age} = 19.78$, $SD = 1.65$) participated in a series of unrelated studies in partial fulfilment of a course requirement. They were randomly assigned to the conditions of a 2 (Emotion Condition: shame vs. control) × 2 (Task Difficulty: easy vs. difficult) between-subjects design with Restore, Protect, and Performance choice as dependent variables.

Procedure and variables

Participants entered the laboratory in groups of eight to twelve participants. They were seated in separate cubicles and informed that the hour consisted of multiple, unrelated studies. Emotions were induced via an autobiographical recall procedure (cf. De Hooge, Zeelenberg, & Breugelmans, 2007). In the Shame condition, participants reported a personal experience in which they felt very ashamed, while in the Control condition participants described a regular weekday.

Next, participants could ostensibly choose their subsequent task. They could choose between one that was related to one's performance and abilities (abilities task) and another that was totally unrelated to performance and abilities (opinion task). Participants were told that the "abilities task" tested one's performance on academic knowledge and skills; a higher score indicated better performance and superior knowledge and skills. The "opinion task" consisted of giving one's opinion about different subjects; no right or wrong answers could be given and scores were not indicative of academic knowledge and skills at all. Participants indicated which task they wanted to do (*Task choice time 1*) and answered ten items about the motivation for their choice. Motivation items were adopted from De Hooge et al. (2010) and consisted of a Restore scale (5 items, *Restore time 1*, $\alpha = .90$) and a Protect scale (5 items, *Protect time 1*, $\alpha = .92$). Examples for the Restore scale are: "I wanted to improve my self-image" and "I wanted to ensure myself that I am competent", and for the Protect scale are: "I wanted to avoid more damage to my self-image" and "I wanted to protect myself". Participants indicated the extent to which each motive had influenced their choice (1 = *not at all*, 7 = *very strongly*).

To manipulate Task difficulty, participants were then provided with several reactions that previous participants had given after having undertaken the "abilities task". After reading the reactions, they could make their final choice between the "abilities task" and "opinion task" (*Task choice time 2*). Participants in the Easy condition read: "I really liked the abilities task a lot. The questions were not very difficult and I think I may have a high score", "That capacities test is easy man! I believe it is almost impossible to fail", and "Did that test. Such easy questions. Can't imagine that you won't make it". In the Difficult condition, participants read: "I really didn't like the abilities task. The questions were difficult and I think I may have a low score", "That capacities test is difficult man! I believe it is almost impossible to succeed", and "Did that test. Such difficult questions. Can't imagine that you would make it". After choosing a task, participants again answered the Restore and Protect scales (*Restore time 2*, $\alpha = .92$, *Protect time 2*, $\alpha = .93$).

Participants continued by doing the task of their choice. In reality, this task was the same task in all conditions. Participants first answered fifteen general-knowledge questions (adopted from Van Harreveld, Van der Pligt, Nordgren, & Claassen, 2008) and then ten items that tested English-language skills. Upon completion, participants were given the possibility of writing down their own opinion concerning the general-knowledge questions and the English-language questions.

Finally, as a manipulation check, participants re-read the shameful event or the normal weekday that they had described and indicated how small they felt, how alone they felt, how much they felt that all attention was drawn towards them, how much they did not want others to know about the described event, and how much they were worried about what others would think of them. These items have been described in the emotion literature as basic elements of experiences of shame (Breugelmans & Poortinga, 2006; Barrett, 1995). Participants also indicated how much shame, satisfaction, embarrassment, pride, guilt, regret, relief, anger, and happiness they felt in the situation (0 = *not at all*, 10 = *very strongly*). After the experiment participants were thanked and debriefed.

RESULTS

Emotion manipulation check

The shame induction worked: Shamed participants scored significantly higher on all basic elements of shame compared to Control participants, all ts(148) > 6.54, all ps < .01, all η^2s > .22. They also felt significantly more shame (M = 8.07, SD = 1.10) than Control participants (M = 1.23, SD = 1.97), $t(148) = 26.29$, $p < .01$, $\eta^2 = .82$, and felt significantly more shame than other emotions, all ts(74) > 2.95, all ps < .01, all η^2s > .11.

Time 1 motives and performance

The findings supported our hypotheses (see Table 1): Shamed participants reported a higher Restore motive ($M = 4.25$, $SD = 1.23$) and a higher Protect motive ($M = 2.86$, $SD = 1.51$) than Control participants ($M = 2.95$, $SD = 1.36$ for Restore and $M = 2.06$, $SD = 1.16$ for Protect), $t(148) = 6.16$, $p < .01$, $\eta^2 = .20$ for Restore, $t(148) = 3.60$, $p < .01$, $\eta^2 = .08$ for Protect. In addition, more Shamed participants wanted to engage in the abilities task (71% in the Shame condition, 51% in the Control condition), $\chi^2(1, N = 150) = 6.29$, $p = .01$. There was no difference in preference for the abilities task between the Easy-Shame condition and the Difficult-Shame condition at this point (72% in the Easy-Shame condition, 69% in the Difficult-Shame condition), $\chi^2(1, N = 75) = 0.05$, $p = .82$. In both the Shame condition and the Control condition there was no correlation between Restore and Protect at time 1, $r = .10$, $p = .37$, and $r = .20$, $p = .09$, respectively.[1]

Time 2 motives and performance

Repeated-measures analyses supported our hypotheses: results showed that only Restore but not Protect changed over time dependent on the emotion and on the difficulty of the task. A repeated-measures analysis with Emotion condition and Task difficulty as independent between-subjects factors and Restore as dependent within-subjects factor showed no main effect of time, $F(1, 146) = 0.05$, $p = .82$, $\eta^2 < .01$, no main effect of Task difficulty, $F(1, 146) = 0.40$, $p = .53$, $\eta^2 < .01$, and a significant main effect of Emotion condition, $F(1, 146) = 36.66$, $p < .01$, $\eta^2 = .20$. More importantly, the results showed a significant three-way interaction, $F(1, 146) = 5.92$, $p = .02$, $\eta^2 = .04$. Shamed participants in the Difficult condition wanted to restore less at time 2 than Shamed participants in the Easy condition,

[1] A closely related emotion to shame is guilt (Tangney, 1999). However, guilt could not explain the effects on the restore or protect motives: in all analyses, adding reported guilt as a covariate showed non-significant effects, while the effects of reported shame remained significant.

Table 1. *Motivation and performance means (and standard deviations) as a function of emotion and task difficulty*

	Shame condition			*Control condition*		
	Easy condition		*Difficult condition*	*Easy condition*		*Difficult condition*
Dependent variables	*M* (*SD*)		*M* (*SD*)	*M* (*SD*)		*M* (*SD*)
Restore motive						
Time 1	4.22 (1.30)	=	4.28 (1.17)	2.81 (1.28)	=	3.07 (1.43)
Time 2	4.66 (1.19)	>	3.73 (1.61)	2.93 (1.39)	=	3.00 (1.61)
Protect motive						
Time 1	2.91 (1.46)	=	2.80 (1.59)	2.11 (1.26)	=	2.02 (1.07)
Time 2	2.62 (1.38)	=	2.59 (1.64)	2.01 (1.16)	=	1.92 (0.93)
Abilities choice						
Time 1	72%	=	69%	54%	=	48%
Time 2	92%	>	63%	69%	=	63%

Notes: Motivation scores could range from 1 (*not at all*) to 7 (*very strongly*), and Abilities choice could range from 0% (*no participant preferred the abilities task*) to 100% (*all participants preferred the abilities task*). There are no significant differences between means separated by an "=" sign, with all ts < 0.84, all ps $> .40$, or with χ^2s < 0.34, all ps $> .56$. Means separated by ">" or "<" signs differ significantly with $t(146) = 2.75$, $p < .01$, or with $\chi^2(1, N = 75) = 9.01$, $p = .01$.

$t(146) = 2.75$, $p = .01$, $\eta^2 = .05$. They also wanted to restore less than at time 1, $t(35) = 3.27$, $p = .01$, $\eta^2 = .23$. Their motivation to restore at time 2 was still somewhat higher than the restore motive of Control participants in the Difficult condition, $t(146) = 2.17$, $p = .03$, $\eta^2 = .03$. The restore motive of Shamed participants in the Easy condition did not decrease: They still wanted to restore more than Control participants in the Easy condition, $t(146) = 5.09$, $p < .01$, $\eta^2 = .15$. They even wanted to restore more at time 2 compared to time 1, $t(38) = 2.73$, $p = .01$, $\eta^2 = .16$. There were no differences on Restore time 2 between the Easy-Control condition and the Difficult-Control condition, $t(146) = 0.22$, $p = .83$, $\eta^2 < .01$.

In contrast, the motivation to protect one's self did not decrease over time. A repeated-measures analysis with Emotion condition and Task difficulty as independent between-subjects factors and Protect as dependent within-subjects factor showed a significant main effect of time, $F(1, 146) = 7.62$, $p < .01$, $\eta^2 = .05$, no main effect of Task difficulty, $F(1, 146) = 0.15$, $p = .70$, $\eta^2 < .01$, and a significant main effect of Emotion condition, $F(1, 146) = 11.95$, $p < .01$, $\eta^2 = .08$. More importantly, the results showed no significant three-way interaction, $F(1, 146) = 0.09$, $p = .76$, $\eta^2 < .01$. Shamed participants in the Difficult condition wanted to protect as much as Shamed participants in the Easy condition at time 2, $t(146) = 0.09$, $p = .93$, $\eta^2 < .01$. They also wanted to protect equally at time 2 compared to time 1, $t(35) = 1.78$, $p = .08$, $\eta^2 = .08$. Just like at time 1, Shamed participants in the Difficult condition wanted to protect themselves more than Difficult-Control participants, $t(146) = 2.28$, $p = .02$, $\eta^2 = .03$. Shamed participants in the Easy condition also wanted to protect equally at time 2 compared to time 1, $t(38) = 1.66$, $p = .11$, $\eta^2 = .07$. In addition, they wanted to protect themselves more than Control participants in the Easy condition, $t(146) = 2.03$, $p = .04$, $\eta^2 = .03$. There were no differences on Protect time 2 between the Easy-Control condition and the Difficult-Control condition, $t(146) = 0.30$, $p = .76$, $\eta^2 < .01$.

Subsequently, Shamed participants in the Difficult condition lowered their preference for the abilities task. At time 2, 92% of the Shamed participants in the Easy condition wanted to do the abilities task, compared to only 63% of the Shamed participants in the Difficult condition,

$\chi^2(1, N = 75) = 9.01$, $p = .01$. There was no difference in preference for the abilities task between the Easy-Control condition (69%) and the Difficult-Control condition (63%), $\chi^2(1, N = 75) = 0.30$, $p = .58$. Indeed, Shamed participants in the Difficult condition now had the same preference for the abilities task as Control participants in the Difficult condition, $\chi^2(1, N = 76) = 0.01$, $p = .90$, while Shamed participants in the Easy condition still had a higher preference for the abilities task than Control participants in the Easy condition, $\chi^2(1, N = 74) = 9.78$, $p = .01$.[2]

To summarise, the data revealed that shame initially motivates restore and protect motives as well as approach behaviours aimed at restoring the self. When this option appears to be too difficult or risky, the restore motive and approach behaviour decline. The motive to protect the self from further possible harm is not influenced by situation characteristics.

GENERAL DISCUSSION

Our study supports a detailed and parsimonious account of the seemingly complex ways in which shame motivates behaviour. Shame is associated with two motives: a restore motive to affirm a positive self and a protect motive to avoid further damage to the self. Shame primarily activates approach behaviour to restore the self, but when affirmation is too difficult or risky, the restore motive diminishes while the protect motive remains unaffected by these situational influences. Consequently, the relative balance between restore and protect motives shifts, and approach behaviour becomes less apparent. Our research clarifies how shame can activate both avoidance and approach behaviours, something that could not be explained by contemporary shame theories. In addition, it extends our earlier findings (see De Hooge et al., 2007, 2008, 2010) in two important ways. First, our experiment replicated the finding that shame stimulates both restore motives and protect motives with other research methods. Second, our experiment showed that shame motives and behaviours can change over time depending on the opportunities to restore the self. These findings illustrate the robustness of findings across different research methods and contexts.

Our research also illuminates the distinction between shame and guilt. Shame and guilt are thought to be very similar emotions (Tangney & Dearing, 2002), for which a difference can be found in the ensuing behaviours. Theoretically, shame is associated with avoidance behaviours while guilt is associated with approach behaviours (e.g., Barrett, 1995; Tangney, 1999), but empirical research has cast doubt on this distinction by showing that shame may activate approach behaviours (De Hooge et al., 2008; Tangney et al., 1996). Our data suggest that the psychological origins and motivations of shame and guilt are actually very different. Guilt signals a damaged relationship partner and activates approach behaviour to maintain and enhance the relationship (Baumeister, Stillwell, & Heatherton, 1994). In contrast, shame signals damage to one's self-view and activates approach behaviour to restore and protect this view. Shame and guilt may thus both activate approach behaviour, but for very different reasons.

The current study is also important for studies on the interplay between emotions and actions. Many emotion theories have elaborated upon this relationship between emotions and behaviour (e.g., Frijda, 1986; Keltner & Haidt, 1999; Zeelenberg & Pieters, 2006), but there is hardly any empirical evidence to corroborate such theories. As such, our study can be considered as one of the first to directly address the question of how emotions lead to behaviours.

Our work has several practical implications. First, it may help people who are struggling with

[2] The effects of our manipulation on Restore, Protect, and on Task choice cannot be explained by other emotions than shame. Regression analyses with the reported emotions satisfaction, embarrassment, pride, guilt, regret, relief, anger, and happiness as predictors and Restore, Protect, or Task choice as dependent variables showed no significant effects.

shame feelings in everyday life. Shame is a negative feeling and people may have a hard time in dealing with negative feelings. Our study suggests that negative feelings need not have negative consequences. Shame may help to motivate recovery of one's damaged self-view, for example by engaging in social activities or developing a new skill, as long as the new undertaking does not make self-affirmation too difficult or risky. Second, our work provides suggestions for audiences to help others overcome their shame experiences. Audiences can help ashamed people by providing an approach situation in which the shamed person can affirm the self without difficulties or risks. Only when such easy and riskless solutions are not available, might it be better to provide a setting where the shamed person can protect the self from further possible harm.

There are two methodological remarks concerning our study. First, one might suggest that mediational analyses with reported shame as a mediator is necessary to further support our hypothesis. A mediational model usually stands as additional evidence for the causal role played by shame at the person level. However, in our experiment the effects of shame on motivations and on approach behaviour were manipulated at the situational level. Due to the successful manipulations, there are strong ceiling effects in the shame ratings. Consequently, there is hardly any variance on the relevant factors, which mediational analyses need to determine relationships between factors. Thus, reported shame cannot mediate motivations and approach tendencies within the conditions of our experiment.

A second remark concerns the use of self-report measures. Self-report scales enable measurement of factors that are not measurable with other methods such as physiological instruments. This certainly applies to factors such as motivations or action tendencies experienced after an emotional event. Although participants may not always be equally good in estimating their motivations or future behaviour, we have no reason to assume that we would find different results by using methods other than self-report measures in our studies.

Applying a functional approach has helped us to develop a better understanding of how shame elicits motivations and behaviour over time. It is now possible to predict and understand what people do when experiencing shame: they try to satisfy the motive of having a positive self-view by engaging in restorative behaviour, but change this strategy to more protective actions when affirmation is too difficult or risky. With this new knowledge, it appears that time has come to develop a more positive, and less ugly view of shame.

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